

**MISSOURI'S 2010-2011
WATERFOWL HABITAT AND HUNTING SEASON REPORT**

Frank Nelson, Doreen Mengel, and Andrew Raedeke Missouri Department of Conservation
18 February 2011

2010-11 WATERFOWL SEASONS

Zone	Youth Hunt	Ducks	Canada Geese & Brant	White-fronted Geese	Light Geese (snow, blue, Ross's)*
NORTH	10/23-10/24	10/30-12/28	10/2-10/10 11/25-1/31	11/25-1/31	10/30-1/31
MIDDLE	10/23-10/24	11/6-1/4			
SOUTH	11/20-11/21	11/25-1/23			
*The Conservation Order for light geese will be in effect from February 1-April 30 with no bag limit. Hunters may use electronic calls & unplugged shotguns, & shoot from ½ hour before sunrise to ½ hour after sunset. A Conservation Order Permit is the only permit required for residents & nonresidents during this time.					

Waterfowl hunting opportunity in Missouri began with the statewide teal (9/11-9/26), and Canada goose (10/2-10/10) seasons followed by the Youth Hunting weekends, the opening of the North, Middle, and South Zone duck seasons and late season goose hunting. Missouri duck seasons have been 60 days in length since 1997, with bag limits the same as allowed in the federal framework. Missouri has traditionally offered youth waterfowl seasons the weekend before the regular duck season in each zone. However, in recent years, this timing has resulted in the youth waterfowl season for the Middle Zone occurring on the same weekend as youth seasons for deer and quail; therefore, the waterfowl Youth Hunt in the Middle Zone was shifted a week earlier to avoid this overlap.

The 2010 Missouri Canada goose season was 77 days in length with an early segment of nine days and a late segment, beginning on Thanksgiving Day, of 68 days. The daily bag limit was three birds during the early segment and, for the first time, three birds during the late segment.

Weather, Habitat and Migrations:

Weather and Habitat:

Extensive spring and summer flooding resulted in highly variable moist-soil seed production depending on the timing and duration of flooding in affected areas. Crop production was also reduced on public areas and in low lying private lands. Northwest Missouri experienced the greatest crop loss due to Missouri River flooding. The wet spring and summer contributed to above average water on the landscape in early October with the exception of the southeast Missouri where the third driest summer since 1950 contributed to an extreme drought that persisted into fall.

October 2010 was the 4th driest October on record and the driest since 1964. Temperatures statewide averaged approximately 2 degrees above normal. High pressure and low humidity dominated throughout the month resulting in pleasant, cloud-free days. One notable weather event occurred on October 25-26 as an unusually strong low pressure system moved across the state resulting in sustained winds between 30 and 40 mph, with 80 mph gusts reported in several locations across the Midwest. The first widespread freeze occurred in Missouri on October 29 as temperatures dropped into the middle to upper 20's across most of the state. The dry conditions were ideal for harvest activities; by the end of the month, 94% of the

corn and 90% of the soybean crop had been harvested, 2 to 3 weeks ahead of normal according to the Missouri Agricultural Statistics Service.

November was characterized by variable weather conditions and numerous frontal systems moving through the state. Monthly temperatures averaged 2-3 degrees above normal with near normal precipitation, averaging slightly less than 3 inches. North central and northeastern Missouri received the lowest precipitation amounts whereas the highest amounts occurred along the I-44 corridor from Springfield to St. Louis (>5 inches) and in the Bootheel. A cold front moved across the state on November 3-5 bringing strong winds and cooler temperatures. A strong cold front moved through Missouri over Thanksgiving bringing strong winds and cooler temperatures.

December was the third consecutive month with below normal precipitation resulting in the 8th driest October-December period recorded for the state. The statewide average monthly temperature of 30°F was 3 degrees below normal for the state. A northwesterly upper air flow pattern dominated for the first 3 weeks of the month and brought reinforcing shots of arctic air. A front moving through Missouri on December 11 resulted in strong winds statewide and 1-3 inches of snow across the northeastern portion of the state and high temperatures only reached the high teens in most of the state during the two days following the passage of this front. Most shallow-water wetlands in the northern two-thirds of the state froze up during this period and even wetlands in southern portion of the state started to freeze. A weak disturbance passed through the state on December 15-16 resulting in freezing drizzle in central and southern Missouri. Two locations in south Missouri set new low temperature records during this time. Another snow accumulation event occurred on December 19, dropping snow in northern Missouri and Iowa. High temperatures across the state were near or below freezing for the period December 22-29. Another winter storm occurred on Christmas Eve and Christmas Day bringing 1-6 inches of snow across north Missouri and a reinforcing blast of cold air. Temperatures then warmed dramatically into the mid-60s with strong southerly winds ahead of a cold front that moved through the region December 30-31. A tornado outbreak occurred in the southern and east central sections of the state with 19 documented tornados touching down during the 2 day event. This included the largest single day tornado outbreak on record in Missouri for December (17 tornados on December 31).

January temperatures averaged 2-4 degrees below normal state-wide with the northern half of the state blanketed in snow for much of the month. Three notable snow events occurred in January with the first happening January 9-11. Northern Missouri received approximately 6 inches of snow whereas less than an inch fell in the Bootheel. Another winter storm dropped 6-12 inches of snow across central Missouri along the I-70 corridor on January 19-20. Lighter amounts of snow occurred further north and south of this band. Temperatures were well below normal across the state for the January 18-24 period with eight weather stations in Missouri documenting new low temperature records. The third significant snow event occurred January 22-23 with 4-8 inches of snow falling on northwestern Missouri. The last week of January was fairly mild with temperatures near or above normal across the state. In response to the Gulf Coast oil spill and subsequent implementation of the Migratory Bird Habitat Initiative, approximately 90,000 acres of cropland was flooded in the Bootheel.

Waterfowl Migrations:

Waterfowl migration into Missouri in 2010 was later than the previous four years. It was not until late October that several area managers reported noticeable bird movements which included departure of Northern pintails and arrival of gadwalls and mallards during October 26- 27. Additionally, several areas experienced a build-up of green-winged teal numbers. Following the November 3-5 cold front, hunting success increased a bit on most areas; this may have been attributed to the arrival of new ducks but no large flight events were reported. Missouri biologists reported birds moving into and off of areas during November 13-14 which corresponded with wintery weather in Minnesota and Iowa. Waterfowl were observed gradually increasing in the state during the next week, November 17-20, as the percentage of

mallards and divers, especially ringed-neck ducks, increased whereas the percentage of green-winged teal and Northern pintail decreased.

Waterfowl numbers gradually increased in Missouri during late November and into early December as habitats began to freeze from north to south. Missouri managers observed a continual push of birds, particularly mallard, gadwall and northern shoveler, on different areas during November 23-24, November 30-December 1, and December 3-4. An impressive migration of snow geese was noted in central and southwest Missouri over the Thanksgiving Day holiday weekend. Additionally, several areas documented large numbers of bald eagles as they followed the migrating waterfowl.

Waterfowl migration peaked in Missouri during the last week of November. This was similar to the timing of peak migration in 2009 although the overall number of waterfowl at the peak migration this year (846,246) was 18% higher than the peak of migration in 2009 (714,992). However, the 2010 peak was approximately 3% less than the peak of 2007 (870,387) and it occurred during the first week of December. Despite reaching a similar total number of birds during the peak of migration compared to the five-year average, the buildup was delayed and the departure sooner in the North Zone. In contrast, duck numbers in the Middle Zone were already higher than the five-year average by the second week of November and reached a higher peak than the five-year average....but did not reach their peak numbers until the first week of December, slightly later than the previous five year average. The South Zone also exceeded the 5 year average migration trend and peaked during the last week of December.

Reports from Iowa stated that the December 11 front precipitated a movement of their remaining ducks and geese south; Missouri experienced a similar fate as birds migrated south when shallow water habitats became inaccessible due to ice following passage of this front. On areas further south, some waterfowl departed whereas new birds arrived. A smaller proportion of hardy waterfowl persisted throughout Missouri and maintained small open pockets of water in different locations through the latter half of December. Rice fields and other shallow water habitats in the Bootheel thawed during the first week of January and waterfowl redistributed themselves across these habitats. Freezing temperatures during the following week pushed birds back south or concentrated the remaining waterfowl on a few scattered large open water bodies for the rest of January.

This year the estimate of total duck use-days on Department areas was 38.97 million.

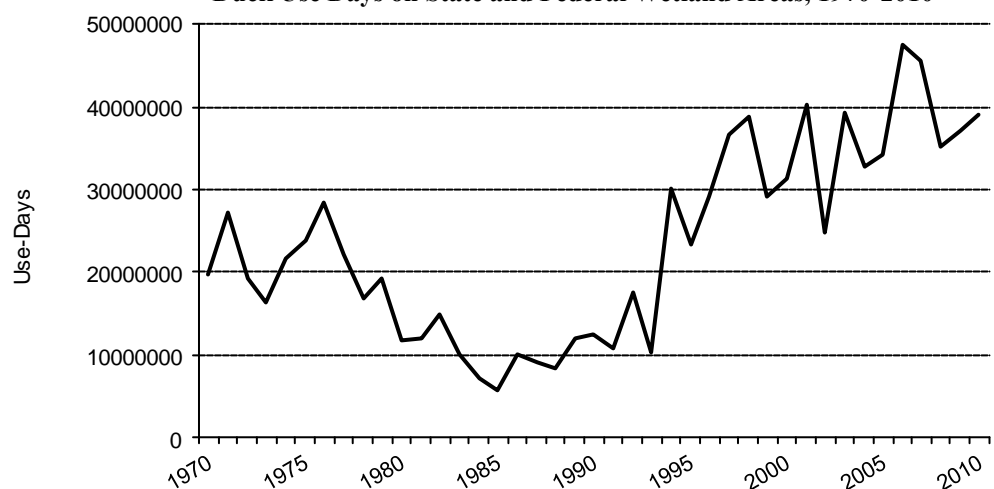
This figure is slightly higher than the average of 36.4 million duck use-days experienced from 1997-2009, the most recent years with 60-day duck seasons.

The Midwinter Waterfowl Survey (January 3-9)

documented 709,861

total ducks, which was the highest number since 2001 (713,860).

Duck Use Days on State and Federal Wetland Areas, 1970-2010

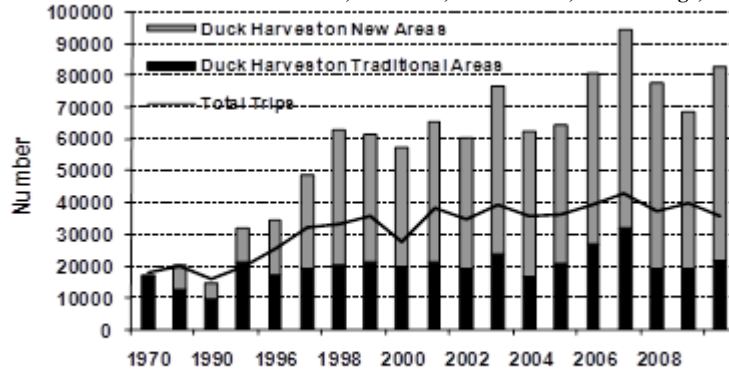


Duck and Goose Harvest:

Mild temperatures and cloudless skies throughout October and early November resulted in numerous “blue bird” days early in the 2010 Missouri duck season with few migration events and limited bird movement. This changed dramatically with the advent of several strong cold fronts that moved through the Midwest in mid-November resulting in significant migration events and increased duck hunter

success. By early December, however, shallow water hunting opportunity was curtailed due to ice. Managers in the northern half of Missouri reported that shallow wetlands had 2 or more inches of ice for the last 21-23 days of the season. Managers in the remainder of the state reported wetlands in their areas were frozen for up to 9 to 21 days of the season. By early January, even hunting opportunity on large reservoirs and rivers were limited due to ice.

Numbers of Ducks Harvested on Missouri Department of Conservation Areas
Traditional Areas = Fountain Grove, Montrose, Duck Creek, Schell-Osage, and Ted Shanks



Duck harvest on Department managed wetlands provides an early indication of statewide harvest. During the 2010-2011 season hunters took 35,800 trips and harvested 82,900 ducks for a 2.31 duck per trip average. This harvest was 12% less than the highest total harvest recorded on Department areas in 2007 (94,800 birds/42,700 hunter trips) but 4% greater the previous five-year average (2005-2009: 79,360). The ducks per trip average was the highest ever recorded on Department areas.

Hunters harvest only a small portion of the statewide total number of ducks on Department areas and this proportion has not increased in recent years. The proportion of ducks harvested on public areas in 2009-10 (13.7% of a statewide total of 502,000) was similar to the average of 14.4% (range = 12.4-16.5%) from 1988-1997. During dry years, Department areas with water pumping capabilities typically account for a higher proportion of the statewide duck harvest than during wet years. If this year's harvest on Department areas represents 12%-19% of the statewide harvest, the harvest could range from 436,500 to 691,100 ducks. A harvest in the lower end of this estimate would fall within the range experienced during past 60-day seasons (378,100-627,300); however, we could have a new record high harvest if the numbers come out on the upper end of the spectrum.

Canada Goose Harvest: Canada goose harvest in 2010-11 could be the third consecutive year with a record harvest. Last year, Missouri's harvest of 89,800 Canada geese topped the previous record (1990-2008) of 85,800 set in 2008. A severe winter in the Midwest resulted in excellent Canada goose numbers from mid- to late December through the close of the season on January 31. Similar to the previous four years, Canada goose hunters benefited from regulations that were 25% more liberal than before and took advantage of the additional late season opportunity this provided. Additionally, the bag limit for Canada geese was increased to three birds, enhancing the opportunity for a record number of birds harvested.

White-fronted Goose Harvest: Relatively few and unpredictable numbers of white-fronted geese are harvested in Missouri. Harvest is expected to be similar to previous years.

Light Goose Harvest: The total light goose harvest in Missouri increased from an average of 16,535 during the 10 years prior to the CO (1988-1997 regular season) to an average annual harvest since 1998 of nearly 155,000 (regular season plus CO), a 9 fold increase. This year, a major snow goose migration occurred over the Thanksgiving Day weekend although spring migrations through the state continue to be less predictable than in years past. We expect a higher harvest than last year.

Waterfowl Disease Surveillance: There were no significant waterfowl disease outbreaks in Missouri during 2010/2011.